



Opiates in Pregnancy

David Chaffin, MD

Director, Maternal Fetal Medicine

Joan C Edwards School of Medicine

Drug Abuse during Pregnancy

- It is a HUGE problem

Drug Abuse during Pregnancy

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- You can't save everyone

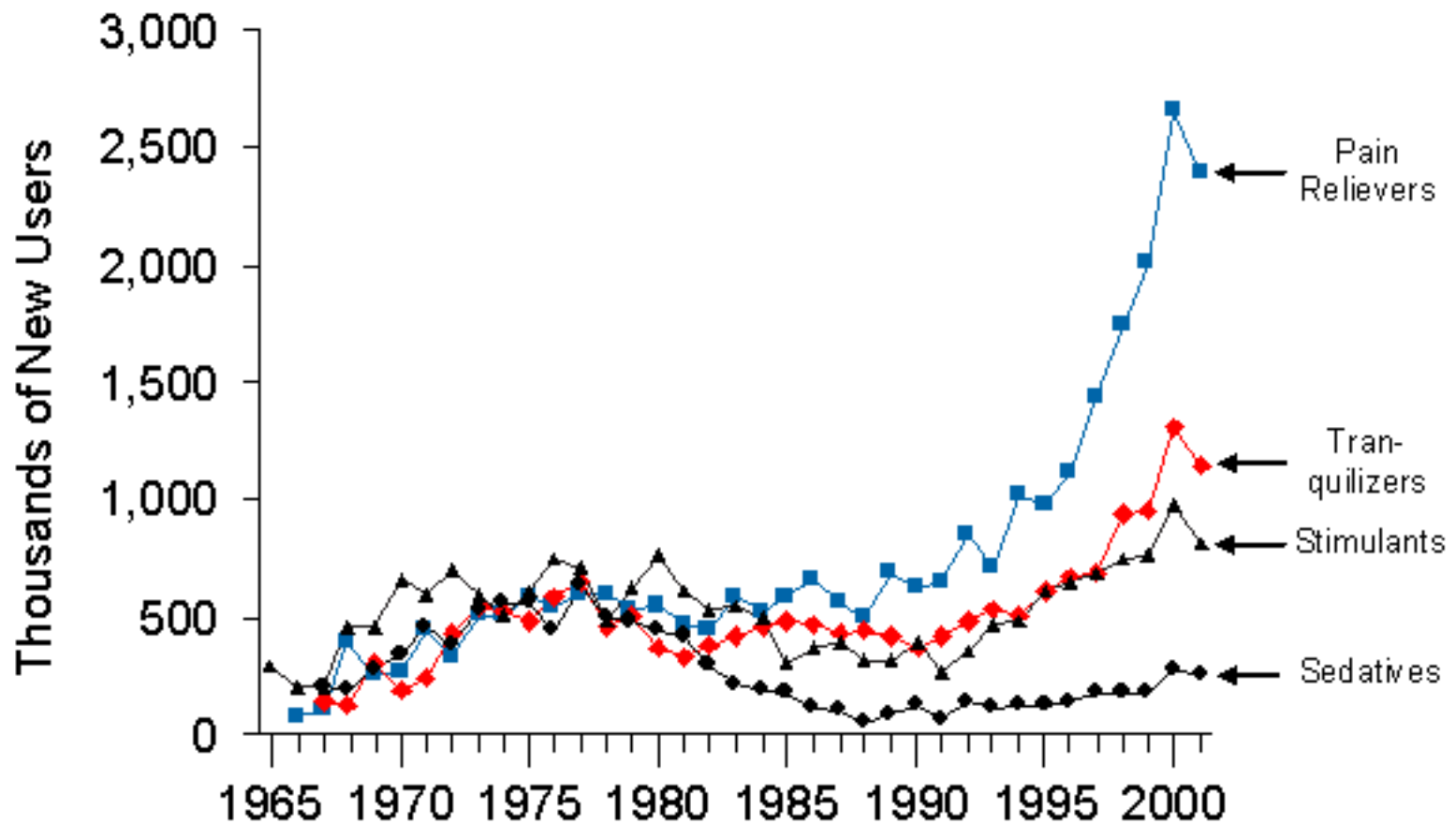
Drug Abuse during Pregnancy

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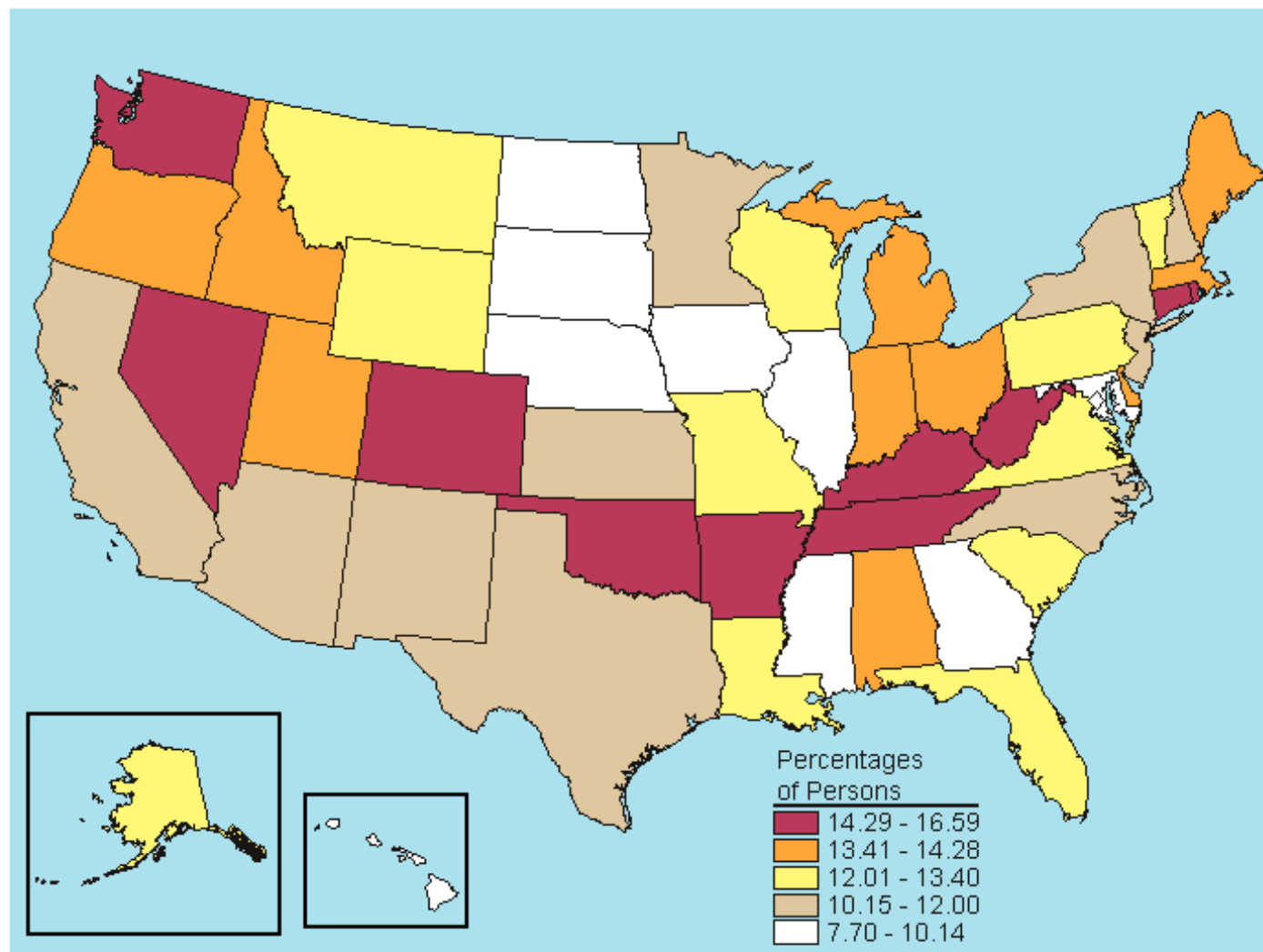
Drug Abuse during Pregnancy – Lessons Learned

- ◉ It is a HUGE problem
- ◉ You can't save everyone
- ◉ Subutex is not a cure but a tool
- ◉ Conversion from methadone to Subutex always fails
- ◉ Conversion from heroin to Subutex is easy
- ◉ Subutex dose reduction is common

Drug Abuse during Pregnancy

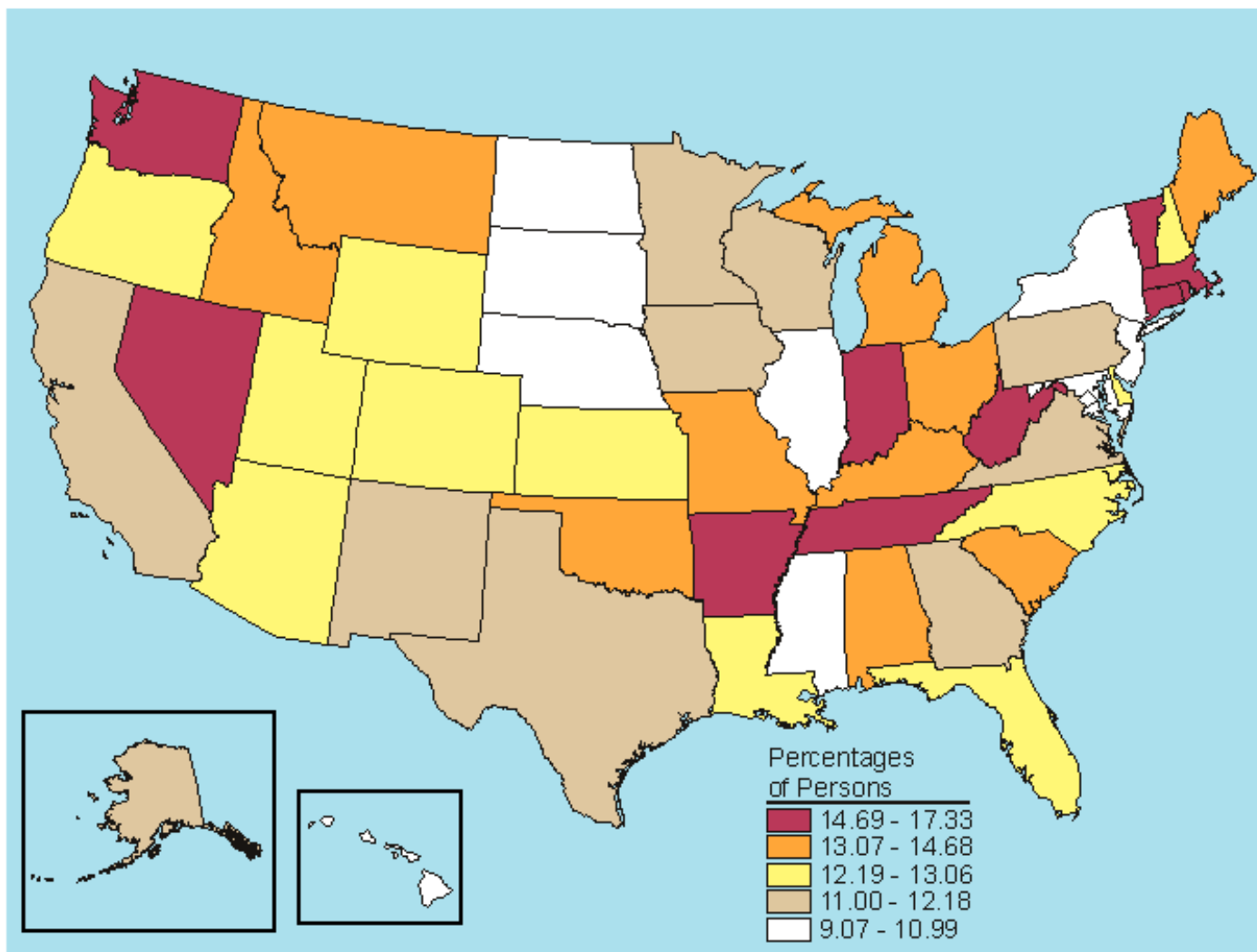


Non-medical use of pain relievers age 18 to 25, 2004-2005



Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2004 and 2005

Non-medical use of pain relievers, age 18-26, 2005-2006



Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2005 and 2006

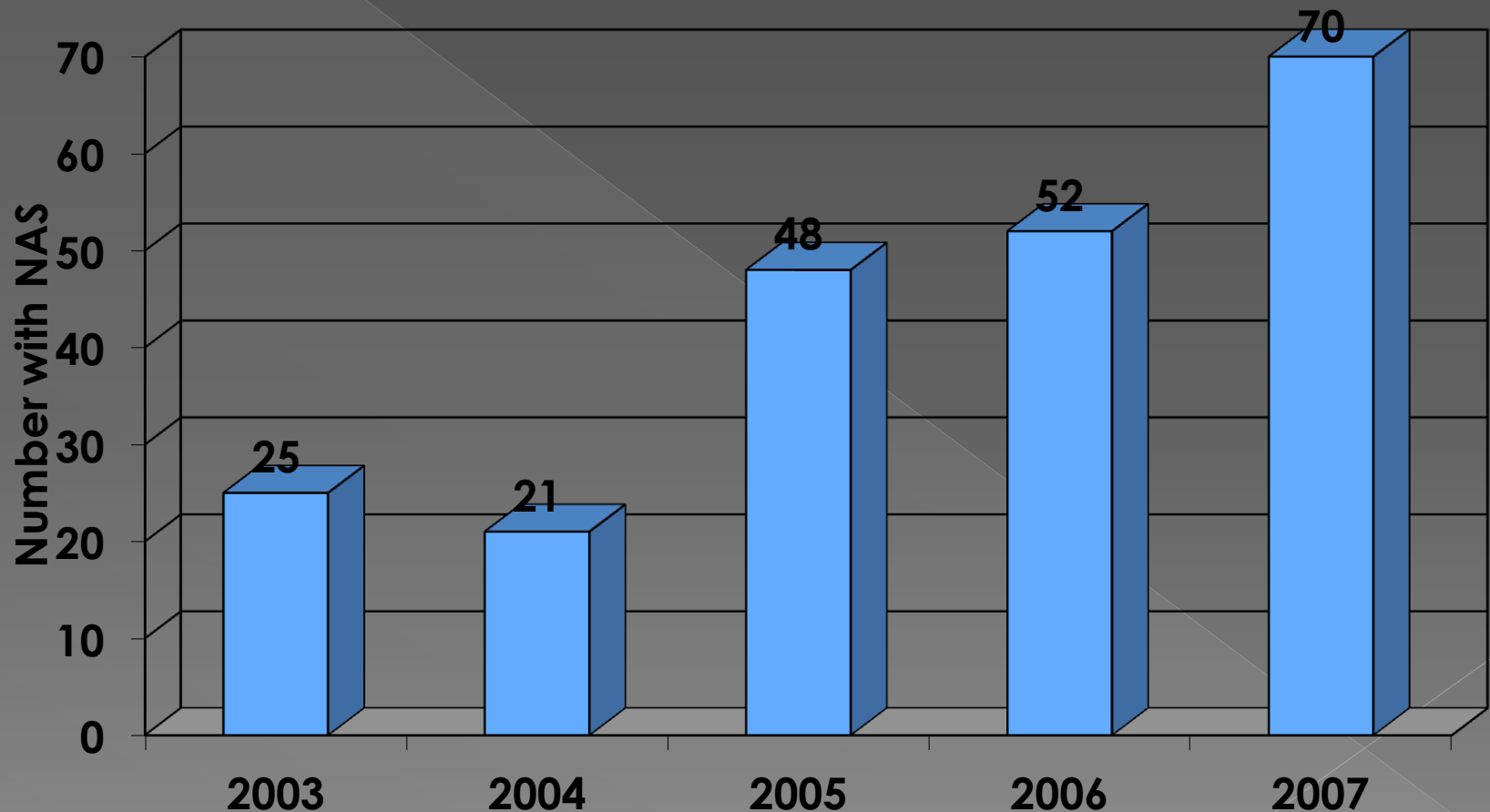
Characterization of Babies Discharged from Cabell Huntington Hospital in 2005 with Neonatal Abstinence Syndrome

F. Ross Baxter, MD

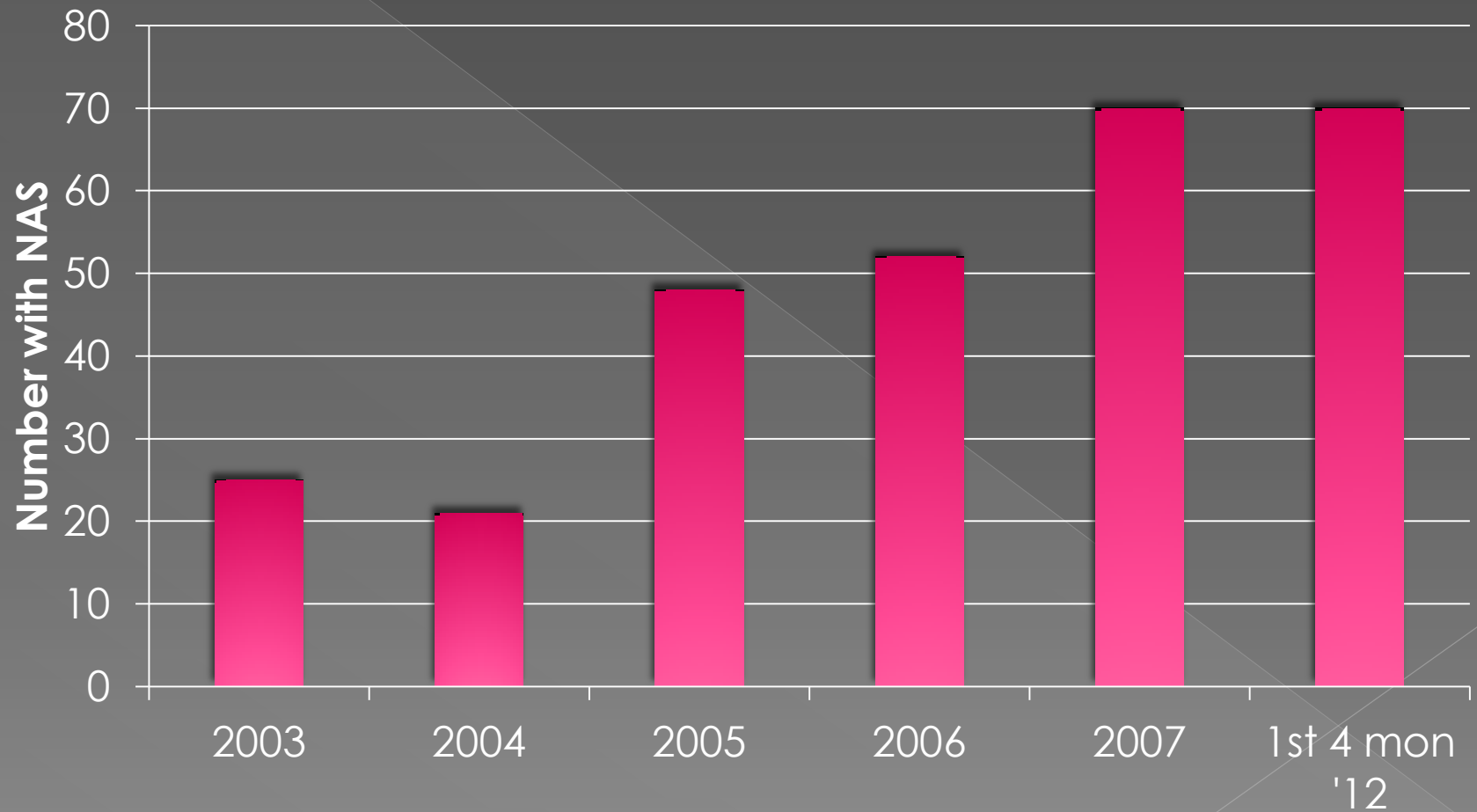
Robert Nerhood, MD

David Chaffin, MD

Rising incidence of NAS



NAS Epidemic (foreshadowing)



“Houston, we have a
problem....”

They don't know us

- “Among pregnant women, approximately 16.3% smoke, 10.8% drink alcohol, and 4.4% used illicit drugs in the past month”

They don't know us

- >30% of pregnant West Virginia patients smoke

They don't know us

- “The continued use of heroin during pregnancy, with its attendant risks of infection, overdose and fetal withdrawal is life threatening to both the woman and her fetus”

Clinical Guidelines for the use of buprenorphine in the treatment of opioid addiction. SAMHSA 2010 TIP 40

They don't know us

- Presentation and severity differ within opioids:
- Heroin: onset 4-24 hours, less severe than methadone
- Methadone: 48-72 hours
- Buprenorphine: almost 24 hrs later than methadone, but less severe
- Oxycodone/hydrocodone: No data
- Morphine: average 34 hrs

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Prevalence of Drug Use in West Virginia Pregnancies

- Office of Maternal, Child and Family Health, West Virginia Department of Health and Human Resources

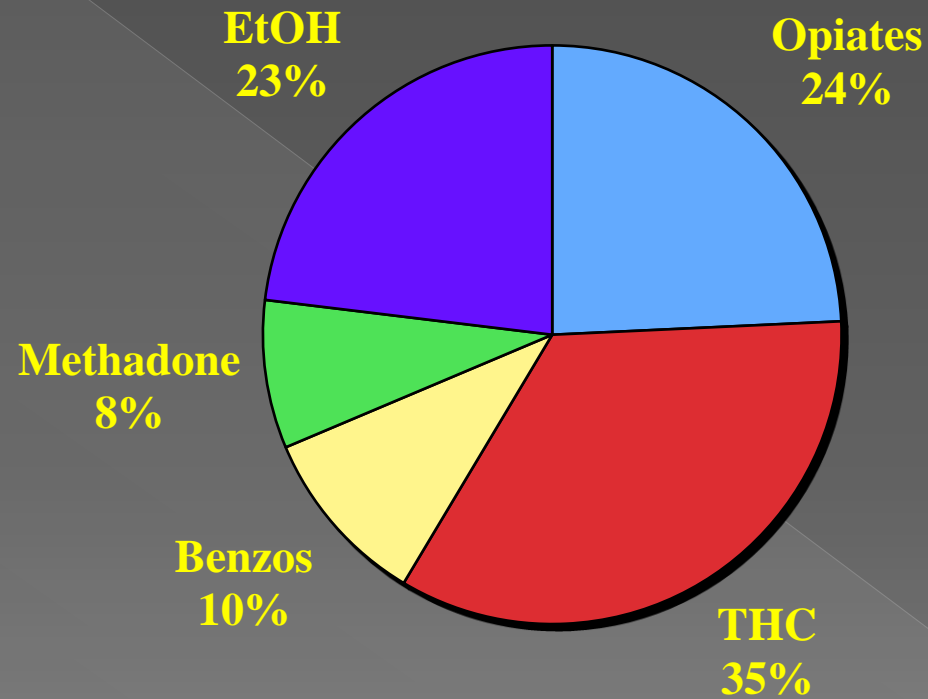
Co-Conspirators

- ◉ Michael Stitely, MD - WVU
- ◉ Byron Calhoun, MD - WVU Charleston
- ◉ Stefan Maxwell, MD - Pediatrix
Charleston

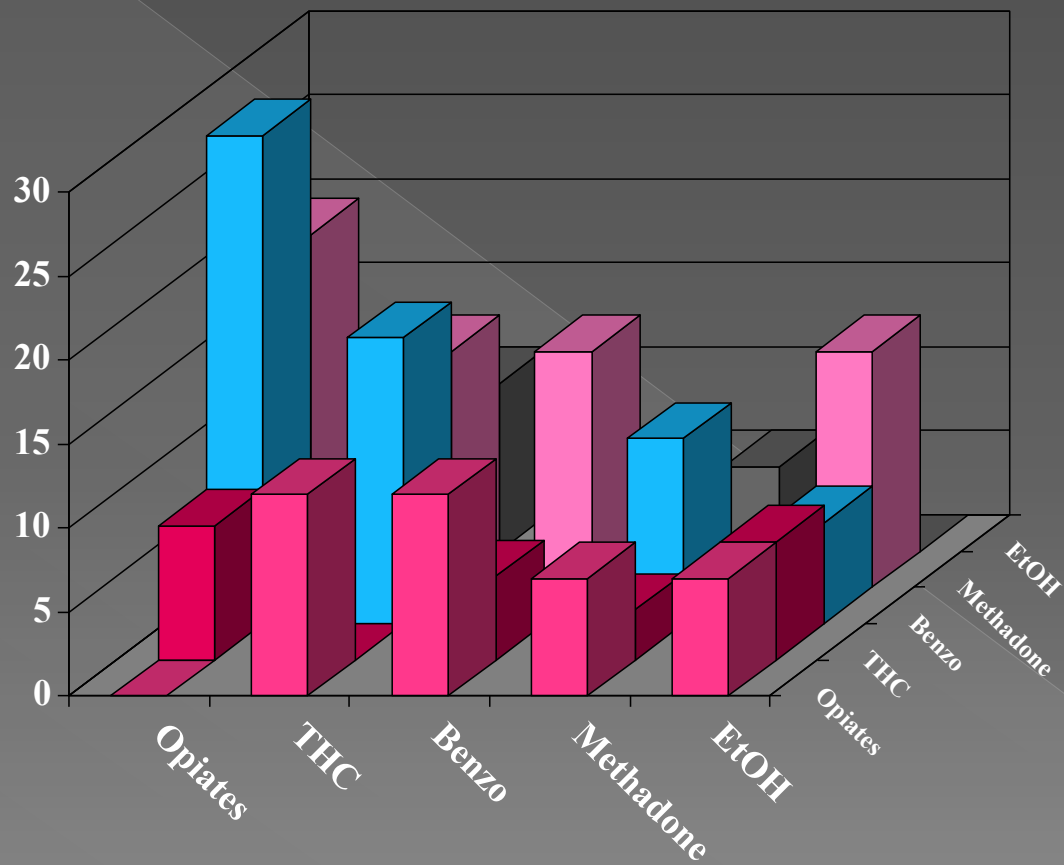
759 Samples: Drugs + Alcohol

	Drugs	Alcohol
● BRMC	14 %	4%
● RGH	19	2
● TMH	10	8
● CAMC	16	8
● CHH	17	1
● RMH	13	4
● WH	12	15
● CH	10	5

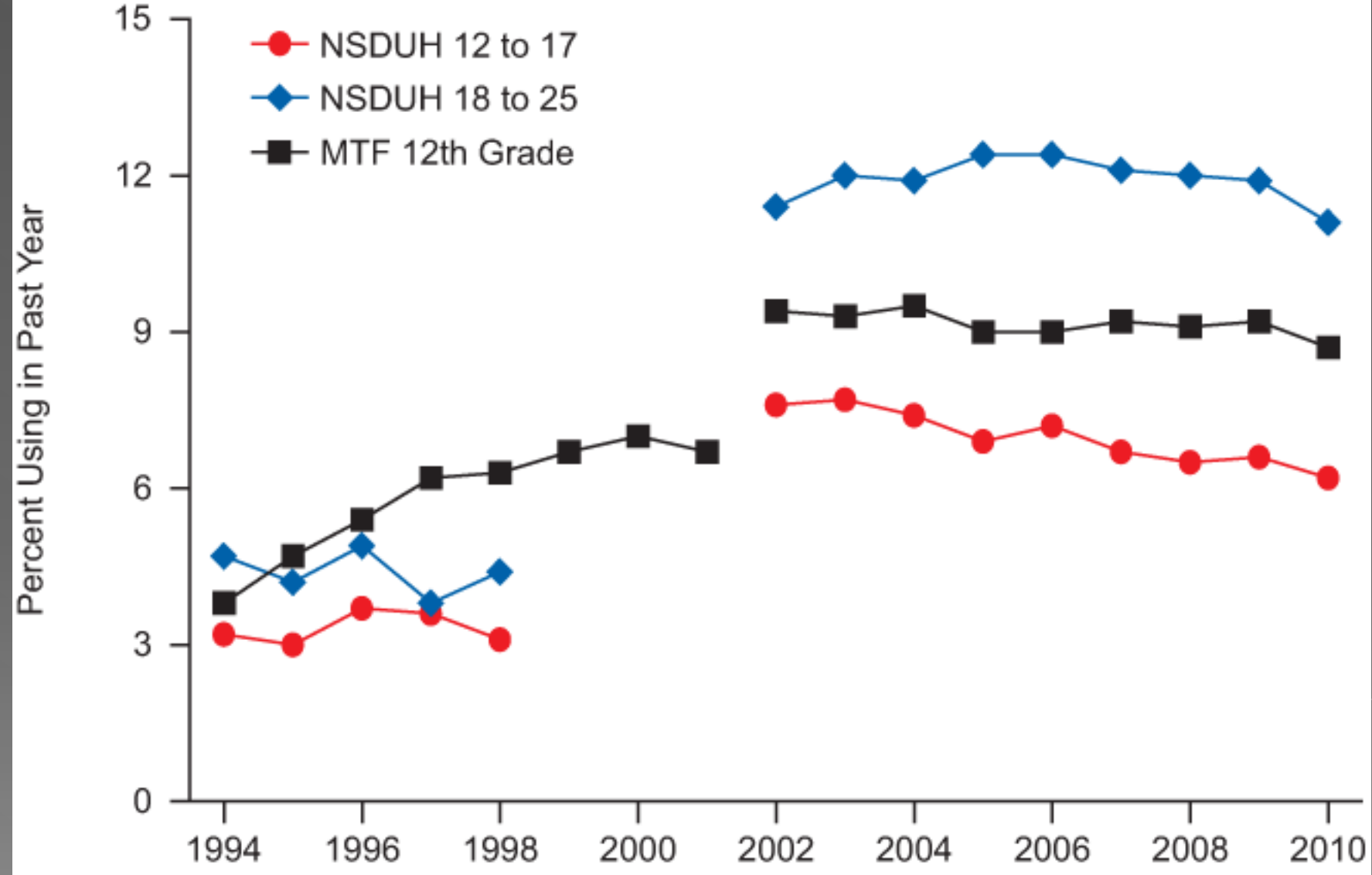
Distribution of Drugs



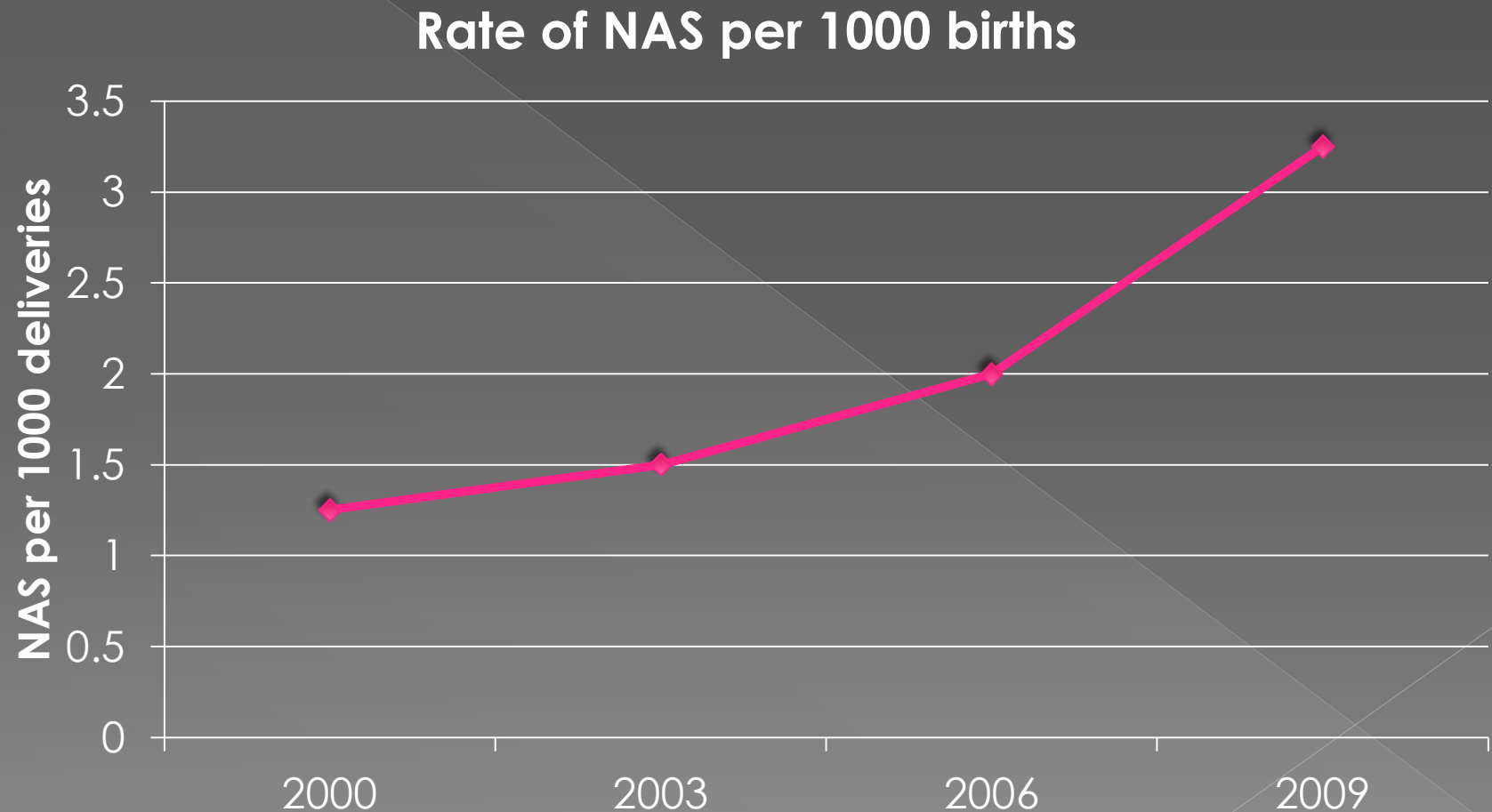
Polysubstance abuse



Past Year Nonmedical Pain Reliever Use among Youths and Young Adults in NSDUH and MTF: 1994-2010



They don't know us and why we were forced to act

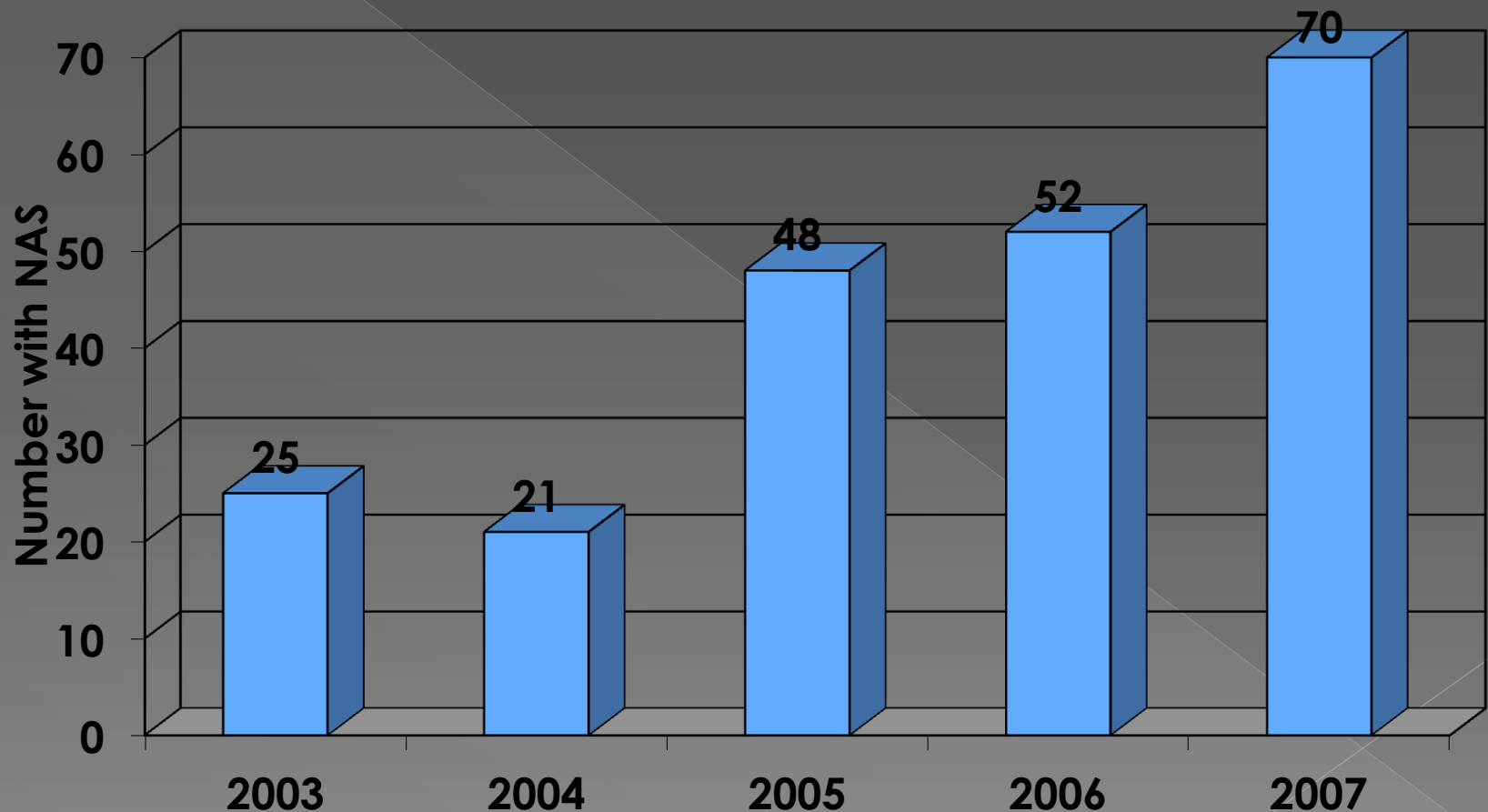




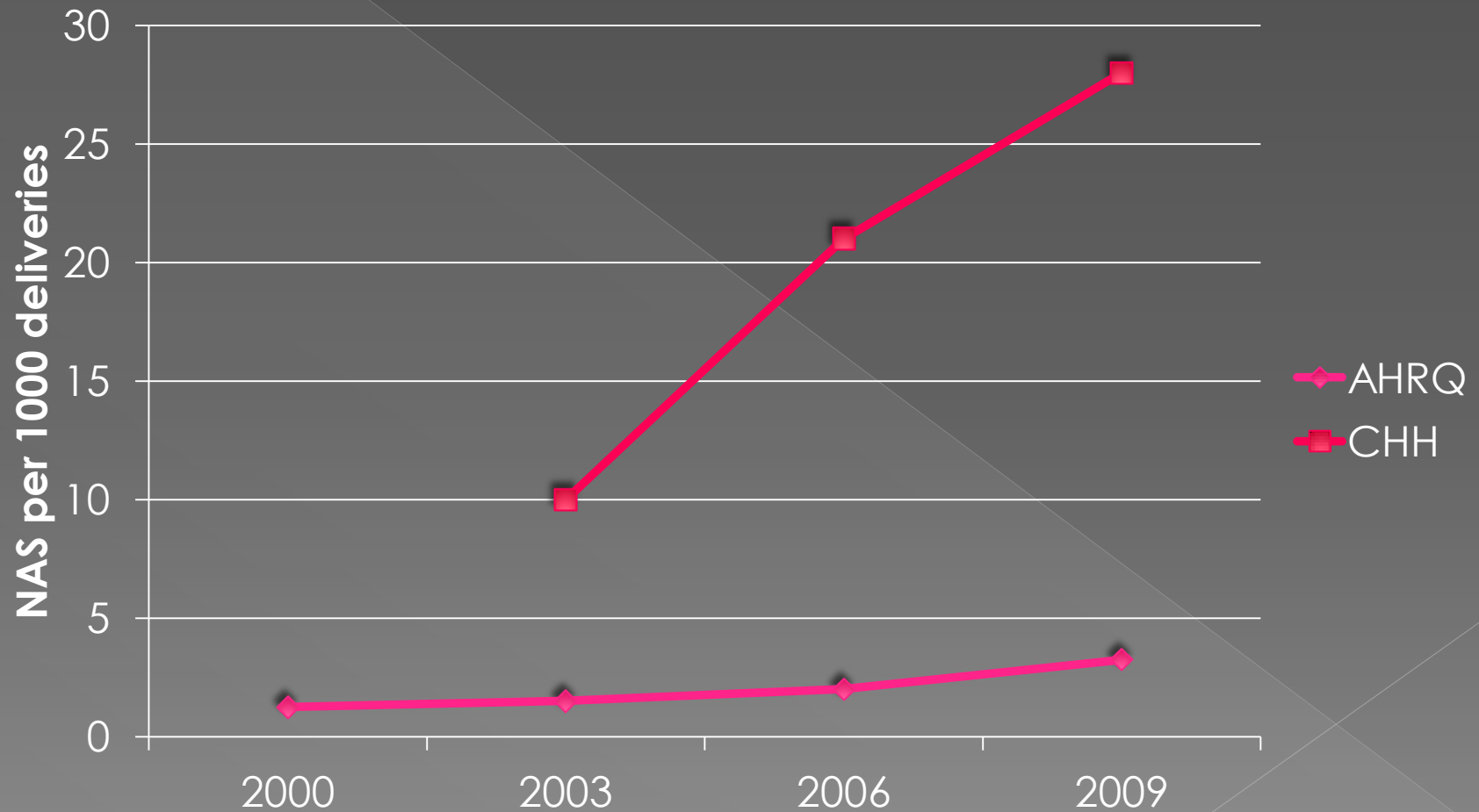
**Number of
Opiate-Addicted
Newborns Triples**

May 1, 2012 6:00 AM CDT

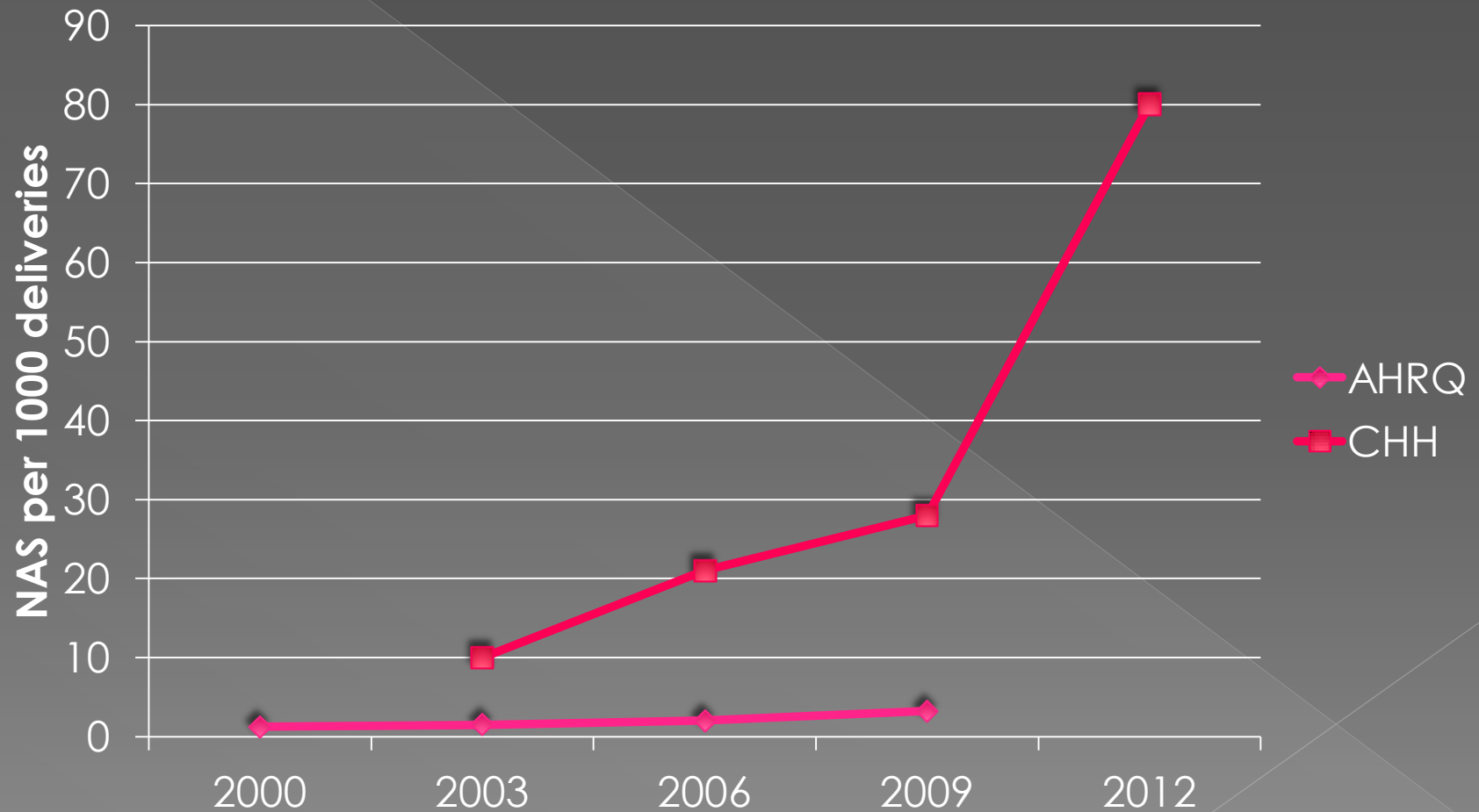
Rising incidence of NAS



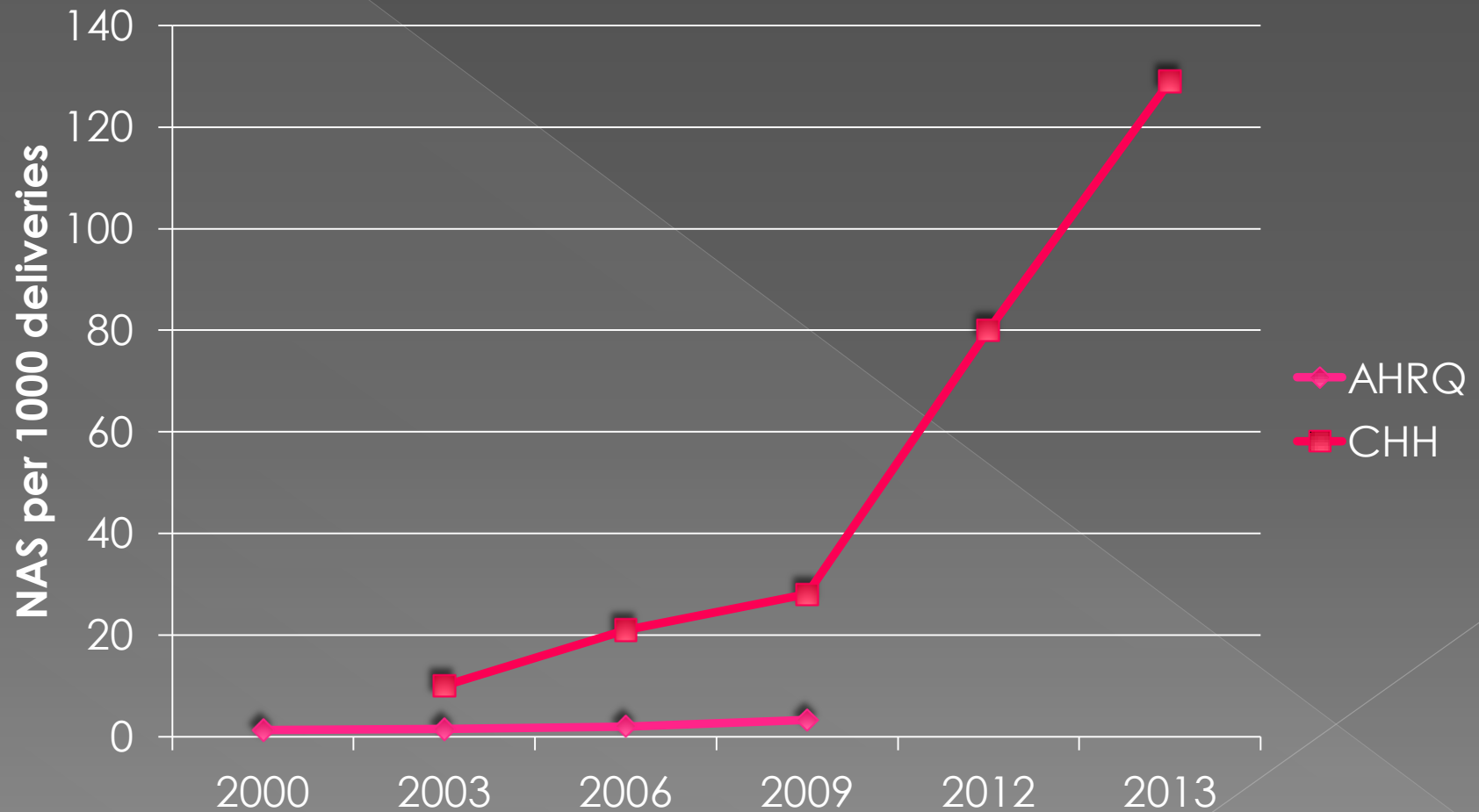
They don't know us and why we were forced to act



They don't know us and why we were forced to act



They don't know us and why we were forced to act



“A monstrous tidal wave...”

David Chaffin, MD Rock Center July 2011

Opiate abuse is the single most common pregnancy comorbidity

Perinatal Complications

- ◉ Intrauterine Growth Restriction
- ◉ Respiratory Distress
- ◉ Preterm labor and delivery
- ◉ Abruptio
- ◉ Fetal death
- ◉ Decreased head circumference
- ◉ Depressed Apgar scores
- ◉ Meconium staining of amniotic fluid
- ◉ Chorioamnionitis
- ◉ Neonatal abstinence syndrome
- ◉ Opioids are NOT teratogenic!

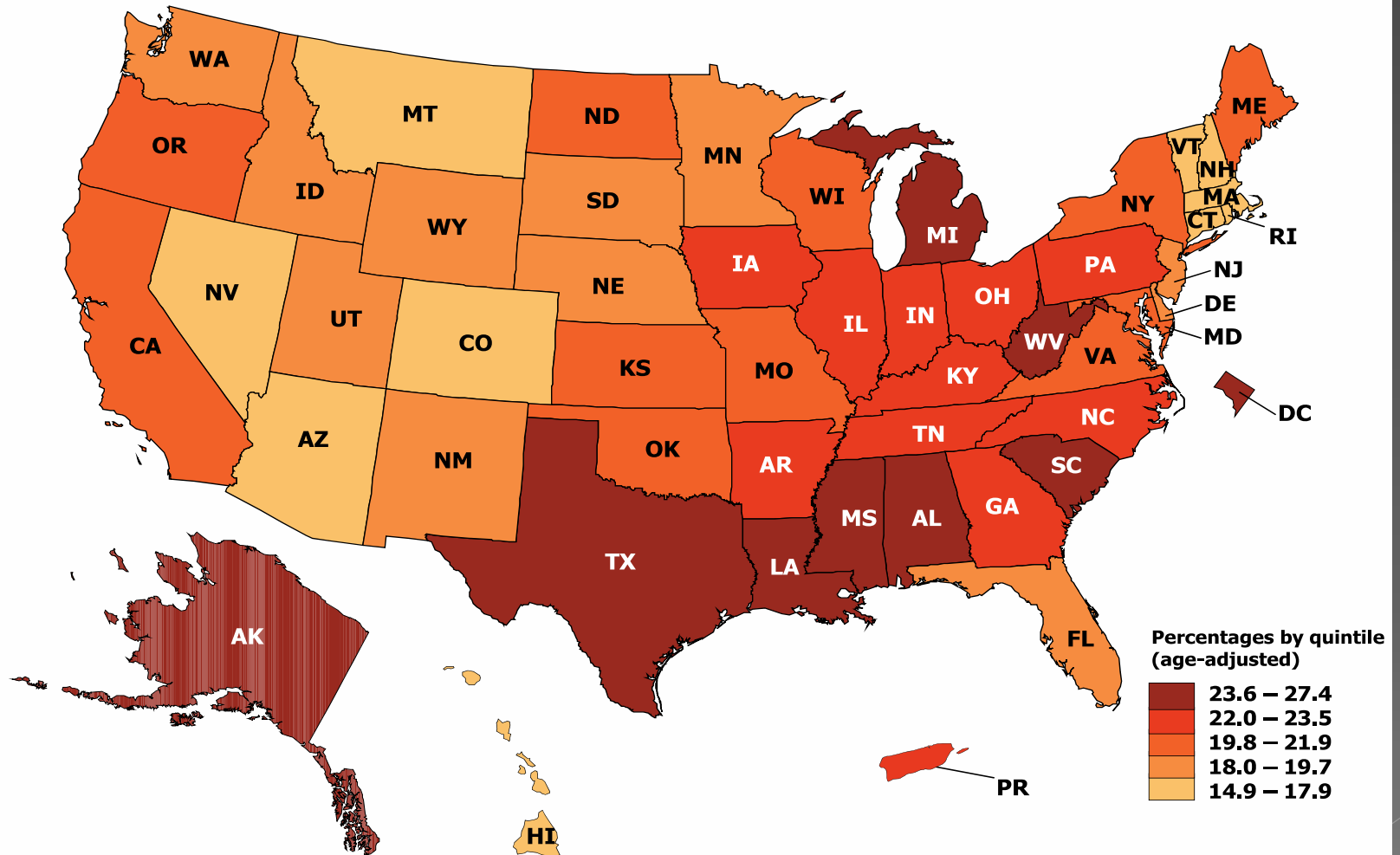
Addiction as a chronic disease

- Chronic relapsing condition which untreated may lead to severe complications and death

Addiction as a chronic disease

- Chronic relapsing condition which untreated may lead to severe complications and death
- Treatable but not curable

Percentages of women aged 20 and older who are obese by State, 2000 – 2002



Addiction as a chronic disease

- ◉ Retention in treatment is key
- ◉ Behavioural changes are needed
- ◉ Adherence is around 30% (similar to asthma, hypertension and diabetes)

Just say “NO” doesn’t work

After the addiction is established

Treatment: Cost Considerations

Year in prison	\$53 -\$71/day	\$25,900
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Annual treatment costs for a drug addict:

Outpatient	\$15/day x 120 days	\$1,800
Intensive outpatient	9 hours/wk + 6 months maintenance	\$2,500
Methadone maintenance	\$13/day x 300 days	\$3,900
Short term residential treatment	\$130/day x 30 days + \$400 x 25 weeks	\$4,400
Long term residential treatment	\$49/day x 140 days	\$6,800

Medication assisted treatment (MAT) for addiction during pregnancy

- Relapse is main issue
- Methadone maintenance is current treatment of choice for opiate addicted pregnant women

Why we started a Subutex program

Why we started a Subutex program

- “In the beginner’s mind there are many possibilities, but in the expert’s there are few.”

Zen Mind, Beginner’s Mind. Shunryu Suzuki

Why we started a Subutex program

- Resistance to methadone

- > Nurses reported feeling like “drug pushers”
- > Life sentence for patients
- > Lack of control over patient management
- > Lack of counseling, group and individual therapy
- > Long NAS treatment times
 - The NICU was ALWAYS full!

Why we started a Subutex program

- Maternal Opioid Treatment: Human Experimental Research (MOTHER Trial)
 - > Shorter hospital stay
 - > Less total opiate replacement
 - > Shorter opiate replacement

Why we started a Subutex program

Many ... were victimized and brutalized almost from birth...were violated through incest, rape and battering. Some women were removed from family homes due to violence or abuse and then abused and violated in subsequent settings...These women were then faced with a myriad of problems resulting from racism, poverty, teenage pregnancy, lack of education, and chronic unemployment... Then drugs came into their lives.

Pregnant women on Drugs.
Murphy and Rosenbaum,
1999

Why we started a Subutex program

With these terrible traumas and limited resources, women faced the prospect of motherhood

Pregnant women on Drugs.
Murphy and Rosenbaum,
1999

Why we started a Subutex program

- Some of these women have NO idea what “normal” behaviour means

Maternal Addiction and Recovery Center (MARC)

- ◉ Open enrollment
- ◉ Weekly group therapy by addictions counselor
- ◉ Individual therapy monthly or more often if needed
- ◉ Weekly NA or AA meetings
- ◉ Nursing staff empathy
- ◉ Combined OB and addiction treatment
- ◉ Patients integrated into clinic population

Maternal Addiction and Recovery Center (MARC)

- In hospital addiction assessment
 - > Long standing benzodiazapine addiction a contraindication
- Monitored withdrawal prior to initializing buprenorphine
- Dosage optimization prior to discharge

Maternal Addiction and Recovery Center (MARC)

- 192 patients converted to buprenorphine

Maternal Addiction and Recovery Center (MARC)

- 192 patients converted to buprenorphine
- 36% failed to make initial counseling appointment
 - > No common theme

Maternal Addiction and Recovery Center (MARC)

- ◉ 192 patients converted to buprenorphine
- ◉ 36% failed to make initial counseling appointment
- ◉ Of patients making at least one appointment, 20% have been discharged
 - > Non-compliance
 - > Relapses (after stabilization)

Maternal Addiction and Recovery Center (MARC)

- 52 Women have delivered

Maternal Addiction and Recovery Center (MARC)

● 52 Women have delivered

> Good News

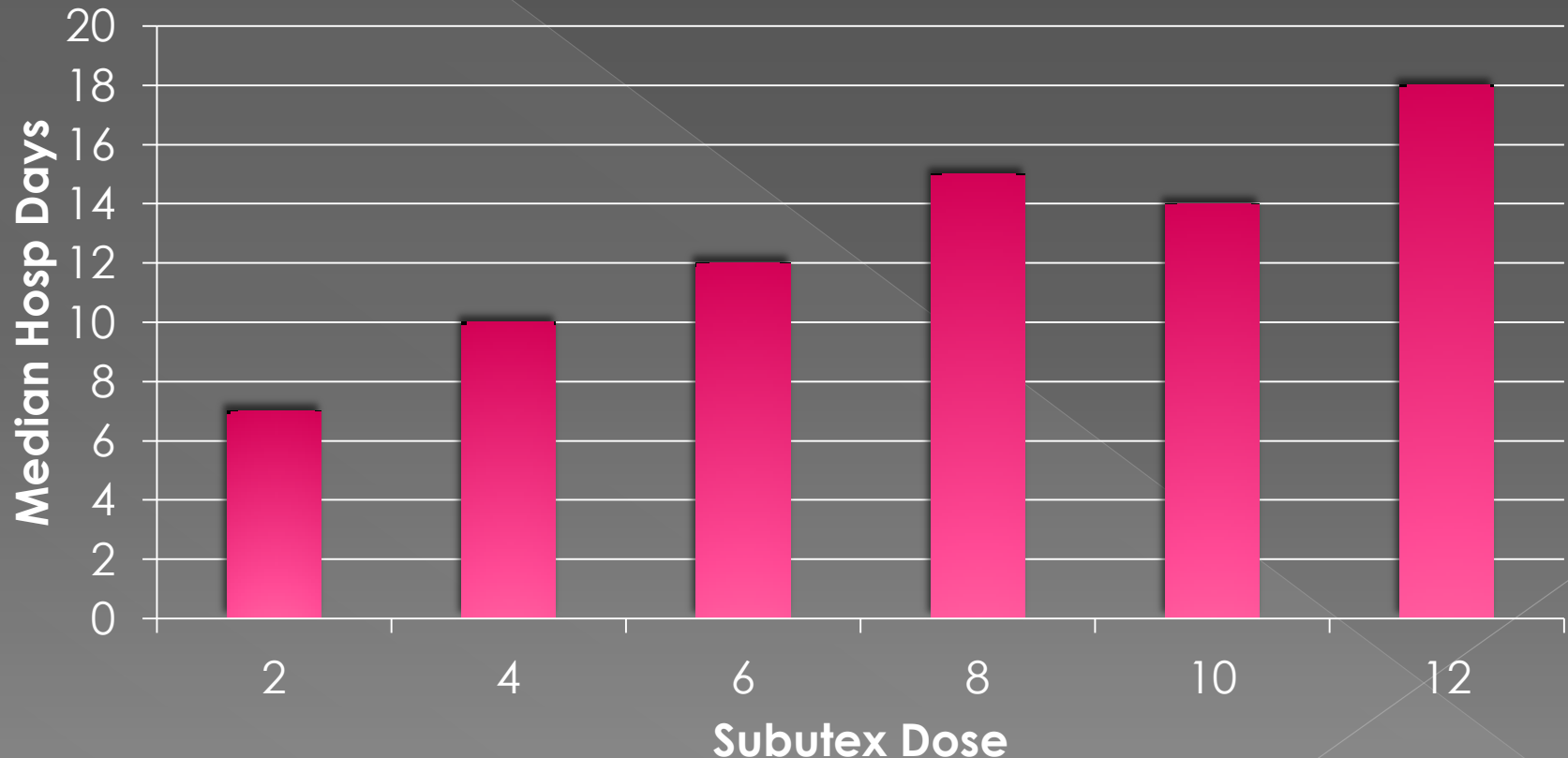
- Median EGA 39 weeks, 90% > 35 weeks
- Mean birthweight 2900 grams
- 25% did not require methadone treatment
- Median hospital stay 6.3 days for infants not requiring treatment

Maternal Addiction and Recovery Center (MARC)

- 52 Women have delivered
 - Good News
 - Disturbing news
 - Median hospital stay 22 (range 7 to 48) days for infants requiring treatment
 - NO dosage threshold

Maternal Addiction and Recovery Center (MARC)

Median Hosp Days



Neonatal Abstinence Syndrome

- ◉ 50-95% of exposed infants
- ◉ More common in methadone exposed infants than heroin exposed infants
- ◉ Generally apparent within 3 days but can occur up to 2 weeks of life
- ◉ Treatment: supportive therapy, various drugs (diazepam, chlorpromazine, phenobarbital, methadone)

Neonatal Withdrawal Syndrome

- CNS

- > Disturbed sleep patterns
- > Hyperactivity
- > Hyperreflexia
- > Tremors
- > Increased muscle tone
- > Myoclonic jerks
- > Shrill cry
- > Convulsions

- Metabolic

- > Fever
- > Hypoglycemia
- > Mottling
- > Sweating
- > Yawning
- > Vasomotor instability

- Respiratory

- > Nasal flaring
- > Nasal stuffiness
- > Sneezing
- > Tachypnea
- > Yawning
- > Hiccups

- Gastrointestinal

- > Excessive sucking
- > Poor feeding
- > Vomiting
- > Diarrhea

Maternal Addiction and Recovery Center (MARC)

● Ongoing Challenges

- Patient compliance
 - ENVIRONMENT!
 - Transportation
 - Child care

Maternal Addiction and Recovery Center (MARC)

- Ongoing Challenges
 - > Patient compliance
 - ENVIRONMENT!
 - > Judgmental attitudes

Maternal Addiction and Recovery Center (MARC)

● Ongoing Challenges

- Patient compliance
- Judgemental attitudes
- Psychiatric comorbidity
 - You might use drugs too if you experience the life challenges of these women

Maternal Addiction and Recovery Center (MARC)

- Ongoing Challenges
 - > Patient compliance
 - > Judgemental attitudes
 - > Psychiatric comorbidity
 - > Postpartum placement

Maternal Addiction and Recovery Center (MARC)

- “...for the secret to the care OF the patient is in caring FOR the patient”

Francis W. Peabody. 1925